MULTIMEDIA UNIVERSITY

STUDENT ID NO.

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# MULTIMEDIA UNIVERSITY

# FINAL EXAMINATION

**TRIMESTER 1, 2022/ 2023 SESSION (TERM ID 2215)**

## PPE0044 – BASIC MICROECONOMICS

(Foundation in Business)

22 FEBRUARY 2023
2.30p.m.- 4.30p.m.
(2 Hours)

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**INSTRUCTIONS TO STUDENT**

1. This question paper consists of **EVELEN (11)** pages.
2. Answer **ALL** the questions in **Sections A and B**.
3. Shade your answers for **Section A** on the OMR sheet. Write your answers for **Section B** in the Answer Booklet.

## SECTION A : MULTIPLE-CHOICE QUESTIONS [40 MARKS]

**Instructions:** Answer **ALL** questions in this section. Shade your answers on the **OMR** sheet.

1. Price elasticity of demand refers to the _____.
   A. responsiveness of quantity demanded to a change in the price of a good
   B. percentage decrease in price in response to a percentage increase in income
   C. percentage increase in price in response to a percentage increase in quantity demanded.
   D. minimum amount that consumers will pay for a percentage change in quantity demanded or supplied

2. Using the midpoint formula, what would be the price elasticity of demand for a cataract operation if the number of operations fell from 6,000 to 4,000 per week after its price increase from RM6,000 to RM10,000?
   A. 0.25
   B. 0.50
   C. 0.80
   D. 1.25

3. If the percentage change in the quantity demanded for a good is less than the percentage change in price, demand is _____.
   A. elastic
   B. inelastic
   C. perfectly elastic
   D. perfectly inelastic

4. If an increase in the price of a product from RM1 to RM2 per unit leads to a decrease in the quantity demanded from 100 to 80 units, then demand is _____.
   A. elastic
   B. inelastic
   C. unitary elasticity
   D. perfectly elastic

5. Which of the following statements is **NOT TRUE**?
   A. Price elasticity of demand for basic food is low.
   B. Elasticities increase as the price of the good increases.
   C. When price elasticity of demand is very high, we say there is brand loyalty.
   D. The availability and price of substitutes affect the elasticity of demand for a good or service.

6. At a price of RM22, a store can sell 25 picture frames a day. At a price of RM20, the store can sell 30 picture frames a day. Since total revenue _____ by the price decrease, demand must be _____.
   A. is increased; elastic
   B. is increased; inelastic
   C. is decreased; elastic
   D. is increased; unit elastic

**Continued...**

7. A firm is currently producing in the inelastic portion of its demand curve. What course of action do you recommend for it, assuming it wants to raise revenue?
   A. Continue selling at the same price, but increase the amount it produces.
   B. Reduce price, because if it reduces price and demand is inelastic, total revenue will increase.
   C. Increase price, because if it increases price and demand is inelastic, total revenue will increase.
   D. Continue producing at the current output level, because it maximises its total revenue by producing in the inelastic portion of its demand curve.

8. The more time that elapses, the _____.
   A. less price elastic is the demand for the product
   B. more price elastic is the demand for the product
   C. greater the income elasticity of demand for a product
   D. smaller the income elasticity of demand for the product

9. A mass transit authority charges bus fares of RM1.25 during morning rush hours but only RM1.00 during late morning non-rush hours. Economists explain the fare difference by the fact that the demand for bus rides during the morning rush hours is _____, but during the late morning it is _____.
   A. more elastic; less elastic
   B. less elastic; more elastic
   C. unit elastic; relatively inelastic
   D. perfectly elastic; perfectly inelastic

10. In order to discourage consumers from eating unhealthy fast food, the government is considering placing a tax on all fast food sales. Which of the following statements is **TRUE**?
   A. The tax on fast food will likely increase the demand for homecooked meals.
   B. The tax on fast food will likely raise considerable revenue, but will be unlikely to reduce the consumption of fast food by consumers.
   C. Given the numerous alternatives, consumers' demand for fast food is relatively elastic and the tax will likely work to discourage fast food consumption.
   D. Both (A) and (C) are true.

11. If the cross elasticity of demand between fish and chicken is 2, then a 2% increase in the price of fish will result in a _____ in the quantity of chicken demanded.
   A. 1% increase
   B. 4% increase
   C. 10% increase
   D. 20% decrease

12. The cross elasticity of demand between good X and good Y is 0.5. Given this information, which of the following statements is **TRUE**?
   A. Goods X and Y are substitutes.
   B. Goods X and Y are complements.
   C. The demand for goods X and Y is inelastic.
   D. The demand for goods X and Y is income inelastic.

**Continued...**

13. If income increases by 10% and, in response, the quantity of housing demanded increases by 7%, then the income elasticity of demand for housing is _____.
    A. -1
    B. -0.7
    C. 0.7
    D. 1.43

14. The income elasticity of demand for low-quality beef is -2. Thus, an 8% decrease in the quantity of low-quality beef demanded _____.
    A. is unrelated to any change in income
    B. is the result of a decrease in income of 4%
    C. is the result of an increase in income of 4%
    D. is the result of an increase in income of 0.25%

15. Price elasticity of supply is the percentage change in the quantity _____ of a good divided by the percentage change in _____.
    A. supplied, the price of the good
    B. demanded, the price of the good
    C. supplied, the price of another good
    D. demanded, the price of another good

16. At a price of RM4, quantity supplied is 100, and at a price of RM6, quantity supplied is 120. Using the midpoint formula, the price elasticity of supply is _____ and supply is _____.
    A. 2.2; elastic
    B. 10; elastic
    C. 0.1; inelastic
    D. 0.45; inelastic

17. If the supply of oranges is unit elastic, the price elasticity of supply of oranges is _____.
    A. 1.0
    B. 0.0
    C. -1.0
    D. -100.0

18. We know that increases in population increase the market demand for various goods. The prices of those goods will increase the most if the price elasticity of supply is _____.
    A. very large
    B. very small
    C. equal to one
    D. greater than 1

**Continued...**

19. Price elasticity of supply and price elasticity of demand, are likely to be _____ in the _____ than in the _____.
    A. lower; past; future
    B. higher; short run; long run
    C. lower; long run; short run
    D. higher; long run; short run

20. The demand curve for good X is generally highly inelastic at and around the current price. If we assume that the supply curve is neither perfectly elastic nor perfectly inelastic, then who will pay the greater share of a tax placed on the production of good X?
    A. The buyers will pay the greater share.
    B. The sellers will pay the greater share.
    C. The buyers and the sellers will pay equal shares.
    D. There is not enough information to answer the question.

SCENARIO : You own and are the only employee of a company that customises bicycles. Last year your total revenue was RM60,000. Your costs for rent and supplies were RM25,000. To start this business, you invested an amount of your own capital that could pay you a RM45,000 a year return.

***Exhibit 1***

21. Refer to the scenario shown in ***Exhibit 1***. During the year, your economic costs were _____.
    A. RM25,000
    B. RM35,000
    C. RM45,000
    D. RM70,000

22. Refer to the scenario shown in ***Exhibit 1*** . Your accounting profit last year was _____.
    A. -RM10,000
    B. RM15,000
    C. RM35,000
    D. RM60,000

23. The costs of materials a firm paid directly in money are considered as its _____.
    A. explicit costs
    B. implicit costs
    C. alternative costs
    D. money opportunity costs

**Continued...**

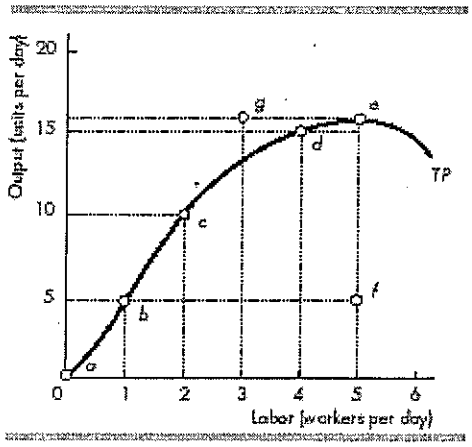


***Exhibit 2***

24. At point *d* in ***Exhibit 2***, the average product of labour equals _____.
    A. 15
    B. 4
    C. 3.75
    D. approximately 1

25. Which of the following is most likely to be a variable cost for a firm?
    A. The interest payments made on loans
    B. The ingredients bought to prepare food for sale
    C. The monthly rent on the shop house that is leased for a year
    D. The franchiser's fee that a restaurant must pay to the national restaurant chain

26. Average variable costs curve and average total costs curve get closer together as output increases because _____ as output increases.
    A. marginal costs decrease
    B. diminishing returns set in
    C. average fixed costs decrease
    D. total costs and total variable costs get closer together

27. Labour is the only variable input for Furkid's dog-walking service. Its labour costs are RM300 a day and it service walks 25 dogs per day. Its labour costs increase to RM315.50 a day to walk 26 dogs per day. The marginal cost of walking that 26th dog is _____.
    A. RM15.50
    B. RM19.50
    C. RM29.50
    D. indeterminate from the information given

28. In a short run production process a(n) _____ marginal product of labour explains why marginal cost is positive and _____.
    A. zero; falls
    B. constant; rises
    C. diminishing; rises
    D. increasing; does not change

**Continued...**

29. If the output levels at which short-run marginal costs curve and average costs curve reach a minimum are listed in order from smallest to greatest, then the order would be _____.
    A. AVC, MC, ATC
    B. ATC, AVC, MC
    C. MC, AVC, ATC
    D. AVC, ATC, MC

30. In the long run, a firm is said to be experiencing decreasing returns to scale if a 10 percent increase in inputs results in _____.
    A. a decrease in output from 100 to 90
    B. a decrease in output from 100 to 85
    C. an increase in output from 100 to 110
    D. an increase in output from 100 to 105

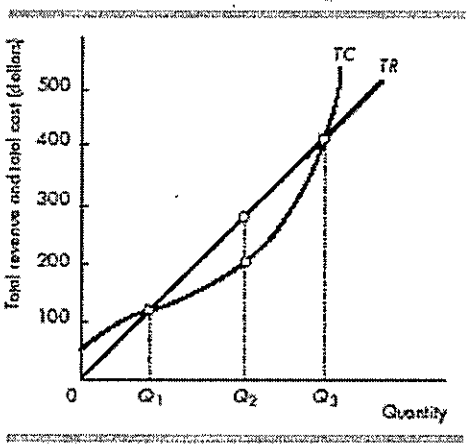


***Exhibit 3***

31. In ***Exhibit 3***, by increasing its output from $Q_1$ to $Q_2$, the firm _____.
    A. decreases its profit
    B. increases its profit
    C. reduces its marginal revenue
    D. increases its marginal revenue

32. There is easy entry into the _____ and _____ industries.
    A. oligopolistic; monopolistic
    B. monopolistic; perfectly competitive
    C. monopolistically competitive; oligopolistic
    D. perfectly competitive; monopolistically competitive

**Continued...**

| Price (RM) | Quantity |
|---|---|
| 4.00 | 100 |
| 3.50 | 200 |
| 3.00 | 300 |
| 2.50 | 400 |
| 2.00 | 500 |
| 1.50 | 600 |
| 1.00 | 700 |

***Exhibit 4***

33. Refer to ***Exhibit 4***. If a monopoly faces the demand schedule given in the table, what is its marginal revenue from the 200th unit it sells?
    A. RM2
    B. RM3
    C. RM3.50
    D. RM300

34. Why do price discriminating firms often offer lower prices to children and elderly?
    A. Such a strategy lowers the costs of the firm.
    B. They have a lower willingness to pay than other consumers.
    C. These firms are more interested in equity than profit maximising.
    D. Their demand for goods and services tends to be less elastic than other consumers.

35. A patent is a barrier to entry _____.
    A. that allows use of an invented product or process by everyone
    B. that grants exclusive use of an invented product or process to the inventor
    C. that grants exclusive use of an invented product or process to the government
    D. that only allows use of an invented product or process to other companies within the industry

36. Mama Lena's, a frozen food producer, is a monopolistically competitive firm. Mama Lena's is currently selling frozen lasagna at a price of RM10. Mama Lena's marginal cost is RM5 and marginal revenue is RM5. This firm should _____ to maximise profits in the short run.
    A. continue to produce the same output level
    B. increase output to where price just equals marginal cost
    C. decrease output to where price just equals marginal cost
    D. indeterminate from the given information

37. In long-run equilibrium for a monopolistically competitive industry, _____ firms earn _____ economic profits.
    A. no; zero
    B. some; positive
    C. some; negative
    D. no; positive or negative

**Continued...**

38. When some firms exit a monopolistic competitive industry, the demand curves of the remaining firms in the industry _____.
    A. do not change
    B. shift to the left
    C. shift downward
    D. shift to the right

39. Perfect competition differs from monopolistic competition primarily because _____.
    A. in perfect competition, price is a decision variable
    B. in perfect competition, firms have homogeneous products
    C. in monopolistic competition, entry into the industry is limited
    D. in monopolistic competition, there are many firms in the industry

40. The major distinguishing characteristic of oligopoly is that _____.
    A. firms are interdependent
    B. entry into the industry is easy
    C. firms produce differentiated products
    D. firms can influence the price of their product

**SECTION B : STRUCTURED QUESTIONS [60 MARKS]**

**Instructions:** Answer **ALL** questions in this section. Write your answers in the answer booklet provided.

***Question 1***

**Part A**

***Exhibit 5*** shows the weekly relationship between output and number of workers for a factory with a fixed size of plant.

| No. of workers | Output |
|---|---|
| 0 | 0 |
| 1 | 50 |
| 2 | 110 |
| 3 | 300 |
| 4 | 450 |
| 5 | 590 |
| 6 | 665 |
| 7 | 700 |
| 8 | 725 |
| 9 | 710 |

***Exhibit 5***

Based on ***Exhibit 5***,

a) calculate the marginal product of labour.

(4.5 marks)

**Continued...**

b) calculate the average product of labour.

(4.5 marks)

c) discuss the relationship between marginal product and average product based on your answers in (a) and (b)

(3 marks)

**Part B**

Following is the information of the production levels of three different firms:
Firm A is currently producing at a quantity where it is experiencing increasing marginal returns.
Firm B is currently producing at a quantity where it is experiencing diminishing marginal returns.
Firm C is currently producing at a quantity where it is experiencing negative returns.

If each of the firms cuts back on its labour force, what will happen to its marginal product of labour?

(3 marks)

**Part C**

Assess if this statement is true: If marginal cost is increasing, then average cost must increase as well. Briefly explain.

(3 marks)

**Part D**

| Qty of cars | Long run average total cost (LRATC) of car (RM) |
|---|---|
| 1 | 30,000 |
| 2 | 20,000 |
| 3 | 15,000 |
| 4 | 12,000 |
| 5 | 12,000 |
| 6 | 12,000 |
| 7 | 14,000 |
| 8 | 18,000 |

***Exhibit 6***

Autosmart is a small automaker. Its long run average total cost is shown in ***Exhibit 6***. For which levels of output does the firm experience increasing returns to scale? What is the shape of the LRATC curve of a firm experiencing increasing returns to scale?

(2 marks)

**(Total: 20 marks)**

**Continued...**

***Question 2***

**Part A**

Assuming that Sharmane has RM28 to spend on chicken pies and fruit punch. Chicken pie costs RM12 each and fruit punch costs RM4 per bottle. ***Exhibit 7*** depicts the total utility she obtained from the consumption of chicken pies and fruit punch.

| Chicken pie | | Fruit punch | |
|---|---|---|---|
| Qty | Total utility | Qty (bottles) | Total utility |
| 0 | 0 | 0 | 0 |
| 1 | 60 | 1 | 40 |
| 2 | 104 | 2 | 70 |
| 3 | 134 | 3 | 94 |
| 4 | 152 | 4 | 114 |
| 5 | 160 | 5 | 128 |

***Exhibit 7***

Based on the information given, answer the following questions:

a) Calculate the marginal utility (MU) and MU/P for chicken pie and fruit punch at all levels of consumption.

(10 marks)

b) What combination of chicken pie and fruit punch should Sharmane consume in order to maximise her total satisfaction? Explain.

(3 marks)

**Part B**

Joe's income each month is RM500 and Joe purchases only two types of goods: food and clothing. Each unit of food (F) costs RM10 per unit and each unit of clothing (C) costs RM20 per unit.

a) Work out Joe's budget equation (assuming food is put on vertical axis, clothing is put on horizontal axis). Calculate the value of the slope of the budget line.

(3 marks)

b) If the price of food increases, what would happen to the slope of the budget line?

(1 mark)

c) If Joe's income decreases to RM250, what would happen to his real income in terms of food and real income in terms of clothing? How will this affect the budget line?

(3 marks)

**(Total: 20 marks)**

**Continued...**

*Question 3*

***Exhibit 8*** depicts some of the information about Healthy Farm, a perfect competitive firm that grows dragon fruits.

| Qty of dragon fruit | Total revenue (RM) | Total costs (RM) |
|---|---|---|
| 0 | 0 | 10 |
| 10 | 60 | 30 |
| 20 | 120 | 40 |
| 30 | 180 | 60 |
| 40 | 240 | 90 |
| 50 | 300 | 130 |
| 60 | 360 | 180 |
| 70 | 420 | 240 |
| 80 | 480 | 310 |

***Exhibit 8***

Based on the information given in ***Exhibit 8***, answer the following questions.

a) Calculate the marginal revenue and marginal cost at all levels of output.

(5 marks)

b) Assuming that currently Healthy Farm is producing 50 units of dragon fruits, what situation is Healthy Farm facing? What should Healthy Farm do to maximise its profit?

(3 marks)

c) At the profit-maximising level of output, what is the profit?

(1 mark)

d) Sketch a diagram to show the short-run equilibrium of Healthy Farm.

(4 marks)

e) Since Healthy Farm is earning economic profit, explain what would happen in dragon fruit market in the long run.

(5 marks)

f) Do perfect competitive firms achieve productive efficiency in the long run? Briefly explain.

(2 marks)

**(Total: 20 marks)**

**End of paper**